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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/011,544	12/05/2001	Tim J. Nohara	RNS S45-003	7731
7590	03/10/2005		EXAMINER	
R. Neil Sudol COLEMAN SUDOL SAPONE, P.C. 714 Colorado Avenue Bridgeport, CT 06605-1601			HA, DAC V	
			ART UNIT	PAPER NUMBER
			2634	

DATE MAILED: 03/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/011,544	NOHARA ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Dac V. Ha	2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on \_\_\_\_.
- 2a) This action is **FINAL**.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_ is/are allowed.
- 6) Claim(s) 1-3,5,6,8-11,13,14,16,18-20,23-27,30 and 34-36 is/are rejected.
- 7) Claim(s) 4,7,12,15,17,21,22,28,29,31-33 and 37-40 is/are objected to.
- 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. ____ .
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
Paper No(s)/Mail Date ____ .	6) <input type="checkbox"/> Other: ____ .

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. **Claim 23** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. **Claim 23** recites the limitation "said extractor" in line 2. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 1-3, 8-11, 16, 18** are rejected under 35 U.S.C. 102(b) as being anticipated by Petry (US 4,933,954).

**Regarding claim 1,** Petry discloses the claimed subject matter in claim 1 including "a signal detector" in Figure 1, element 6; "a signal extractor operatively connected to said signal detector and connectable to said wideband receiver for performing signal extraction directly on a wideband signal output of said receiver and for

performing said signal extraction only upon detection of at least one signal by said signal detector" in Figure 1, element 10; col. 3, line 40 to 4, line17.

**Regarding claim 9**, see claim 1 above.

**Regarding claim 2**, Petry further discloses "said signal detector ... wideband signal output" in col. 3, lines 1-24.

**Regarding claim 10**, see claim 2 above.

**Regarding claim 3**, Petry further discloses "said means ... wideband signal output" in col. 3, lines 1-24.

**Regarding claim 11**, see claim 3 above.

**Regarding claim 8**, Petry further discloses the claimed subject matter "a buffer connectable to said receiver on one side and connected to said detector and said extractor on another side" in Fig. 1, element 8.

**Regarding claim 16**, see claim 8 above.

**Regarding claim 18**, Petry further discloses the claimed subject matter "wherein ... wideband signal output" in Figure 1, elements 6, 10.

6. **Claims 19, 20, 24, 25, 30, 31, 35** are rejected under 35 U.S.C. 102(b) as being anticipated by Kotzin et al. (US 5,412,690) (hereafter Kotzin).

**Regarding claim 19**, Kotzin discloses the claimed subject matter "a digital filter bnnk generating a coarsely sampled or decimated time-frequency representation of a wideband signal output of a wideband receiver of said wideband intercept receiver system, said time-frequency representation being coarsely sampled or decimated in a time domain and fully represented in a frequency domain" in Figure 1, elements 104,

116; Figure 2; Figure 5; col. 5, line 48 to col. 6, line 51; and “a signal detection component operatively connected to said digital filter bank for analyzing said time-frequency representation to detect presence of a signal” in Figure 1, element 120; col. 6, lines 55-65.

**Regarding claim 24**, see claim 19.

**Regarding claim 20**, Kotzin further implies the teaching of “wherein said digital filter bank includes means for performing a sequence of windowed FFTS on samples of said wideband signal output” in col. 10, lines 43-45.

**Regarding claim 25**, Kotzin further discloses the claimed subject matter “further ... detected signal” in col. 7, lines 21-38.

**Regarding claim 30**, Kotzin further discloses the claimed subject matter “wherein ... filter bank” in Fig. 2.

**Regarding claim 31**, see claim 20.

**Regarding claim 35**, the claimed subject matter “wherein ... time and frequency” is inherent from Kotzin.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 5, 6, 13, 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Petry in view of Kotzin.

**Regarding claim 5,** Petry discloses all the claimed subject matter in claim 1, as stated above, except for the claimed subject matter “wherein said means for generating includes a digital filter bank”. However, in the same field of endeavor, Kotzin discloses the use of such “digital filter bank” is an option in Figure 1, elements 104, 116.

**Regarding claim 13,** see claim 5 above.

**Regarding claim 6,** Petry further discloses the claimed subject matter “wherein said digital filter bank includes means for performing a sequence of windowed FFTS on samples of said wideband signal output” in col. 3, lines 11-24.

**Regarding claim 14,** see claim 6 above.

9. **Claim 26, 27** is rejected under 35 U.S.C. 103(a) as being unpatentable over Kotzin.

**Regarding claim 26,** the claimed subject matter “wherein the estimating ... detected signal” would have been realized by one skilled in the art as an option based on Kotzin.

**Regarding claim 27,** the claimed subject matter “wherein ... bandwidth” would have been obvious to one skilled in the art.

10. **Claims 34, 36** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kotzin in view of Petry.

**Regarding claim 34,** Kotzin discloses all the claimed subject matter in claim 34, as stated above, except for the claimed subject matter “temporarily storing ...

representation". However, the same field of endeavor, Petry discloses the use of a storage device in Fig. 1, element 8, as option. Thus, such claimed subject "temporarily storing ... representation" would have been optional to one skilled in the art.

**Regarding claim 36,** Petry further discloses the claimed subject matter "extracting ... output" in Figure 1, element 10.

***Allowable Subject Matter***

11. **Claims 4, 7, 12, 15, 17, 21-23, 28, 29, 31-33, 37-40** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Bottomley et al. (US 6,570,910) disclose Baseband Processor With Look-Ahead Parameter Estimation Capabilities.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dac V. Ha whose telephone number is 571-272-3040. The examiner can normally be reached on 5/4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571-272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Dac V. Ha  
Primary Examiner  
Art Unit 2634